

ABSTRACT

The present invention provides a spring steel wire which has a tempered martensitic structure brought about by quenching-tempering. The present spring steel wire has a 40 % or higher reduction of area and a 1,000 MPa or higher shear yield stress after subjected to heat treatment for at least 2 hours at a temperature ranging from 420°C to 480°C. The present steel wire preferably constitutes, based on mass %, C: 0.50-0.75%, Si: 1.80-2.70%, Mn: 0.1-0.7%, Cr: 0.70-1.50%, Co: 0.02 - 1.00%, and remnants consisting of Fe and impurities, or constitutes, based on mass %, C: 0.50-0.75%, Si: 1.80-2.70%, Mn: over 0.7-1.50%, Cr: 0.70-1.50%, and remnants consisting of Fe and impurities.